



SECTION 09910

PAINTS

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Surface preparation and field painting of exposed interior items and surfaces, including mechanical and electrical equipment that do not have a factory-applied finish.
- B. Surface preparation and field painting of exposed exterior items and surfaces.

1.2 RELATED SECTIONS

- A. Section 03300 - Concrete: Surface coordination and curing provisions.
- B. Section 05120 - Structural Steel: Shop priming structural steel.
- C. Section 05500 - Metal Fabrications: Shop priming ferrous metal.
- D. Section 06200 - Finish Carpentry: Shop priming architectural woodwork.
- E. Section 08110 - Steel Doors and Frames: Factory priming steel doors and frames.
- F. Section 09260 - Gypsum Board Assemblies: Surface preparation of gypsum board.
- G. Section 15050 - Basic Mechanical Materials and Methods: Mechanical identification.
- H. Section 16050 - Basic Electrical Materials and Methods: Electrical identification.

1.3 REFERENCES

- A. American Society for Testing and Materials (ASTM) D 16 - Standard Terminology for Paint, Related Coatings, Materials, and Applications.
- B. Steel Structures Painting Council (SSPC) SP6 - Commercial Blast Cleaning Procedures.
- C. Steel Structures Painting Council (SSPC) SP10 - Near White Blast Cleaning Procedure.

1.4 DEFINITIONS

- A. General: Standard coating terms defined within Masters Painters Institute (MPI) manual.
 - 1. Gloss level 1 - Flat with a gloss range below 3 when measured at a 60-degree

- meter and 10 when measured at an 85-degree meter.
- 2. Gloss level 2 - Low Sheen with a gloss range of 5 to 10 when measured at a 60 degree meter and 10 to 35 when measured at an 85 degree meter.
- 3. Gloss level 3 - Eggshell with a gloss range between 10 and 15 when measured at a 60-degree meter and 10 to 35 when measured at an 85-degree meter.
- 4. Gloss level 4 - Satin with a gloss range between 25 to 35 when measured with a 60 degree meter.
- 5. Gloss level 5 - Semi-Gloss with a gloss range between 50 and 55 when measured at a 60 degree meter.
- 6. Gloss level 6 - Gloss with a gloss range more than 70 when measured at a 60 degree meter.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. [Product Data]: Manufacturer's data sheets on each product to be used, including:
 - 1. Material List: An inclusive list of required coating materials. Indicate each material and cross-reference specific coating, finish system, and application. Identify each material by manufacturer's catalog number and general classification.
 - 2. Preparation instructions and recommendations.
 - 3. Manufacturer's Information: Manufacturer's technical information, including label analysis and instructions for handling, storing, and applying each coating material.
- C. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: A firm or individual experienced in applying paints and coatings similar in material, design, and extent to those indicated for this Project, whose work has resulted in applications with a record of successful in-service performance.
- B. Obtain block fillers and primers for each coating system from the same manufacturer as the finish coats.
- C. Paint exposed surfaces. If an item or a surface is not specifically mentioned, paint the item or surface the same as similar adjacent materials or surfaces. If a color of finish is not indicated, Architect will select from standard colors and finishes available.
- D. Do not paint prefinished items, concealed surfaces, finished metal surfaces, operating parts, and labels.
- E. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in manufacturer's original, unopened packages and containers bearing manufacturer's name and label:
- B. Store materials not in use in tightly covered containers in a well-ventilated area at a minimum ambient temperature of 45 deg F (7 deg C). Maintain storage containers in a clean condition, free of foreign materials and residue.
- C. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.
- D. Apply waterborne paints only when temperatures of surfaces to be painted and surrounding air are between 50 and 90 deg F (10 and 32 deg C).
- E. Apply solvent-thinned paints only when temperatures of surfaces to be painted and surrounding air are between 45 and 95 deg F (7 and 35 deg C).
- F. Do not apply paint in snow, rain, fog, or mist; or when relative humidity exceeds 85 percent; or at temperatures less than 5 deg F (3 deg C) above the dew point; or to damp or wet surfaces.
 - 1. Painting may continue during inclement weather if surfaces and areas to be painted are enclosed and heated within temperature limits specified by manufacturer during application and drying periods.

1.8 EXTRA MATERIALS

- A. Furnish extra paint materials from the same production run as the materials applied and in the quantities described below. Package with protective covering for storage and identify with labels describing contents. Deliver extra materials to Owner.
- B. Quantity: Furnish Owner with an additional three percent, but not less than 1 gal (3.8 l) or 1 case, as appropriate, of each material and color applied.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Kelly-Moore Paints, which is located at: 987 Commercial St. ; San Carlos, CA 94070; Toll Free Tel: 888-MR PAINT; Tel: 888-kmcolor; Fax: 650-595-0435; Email: mcrawford@kellymoore.com; Web: www.kellymoore.com
- B. Requests for substitutions will be considered in accordance with provisions of Section 01600.

2.2 PAINT MATERIALS - GENERAL

- A. Material Compatibility: Provide block fillers, primers, and finish-coat materials that are compatible with one another and with the substrates indicated under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
- B. Color: Refer to Finish Schedule and Paint Legend for paint colors.
- C. Application Rate: Coating thickness for primer, intermediate, barrier and finish coats shall be measured as Dry Film Thickness (DFT) and comply with manufacturer's published recommendations.

2.3 EXTERIOR MASONRY, CONCRETE AND STUCCO

- A. Concrete, Stucco, Brick (Acrylic Textured Finish):
 - 1. Primer:
 - a. 98 STUCCO SEAL Acrylic Stucco and Masonry Sealer.
 - 2. Finish:
 - a. 1105 KEL-CRETE Exterior Acrylic Masonry Flat Finish followed by texture coat 1112 KEL-TEX Exterior Acrylic Textured Coating.

2.4 INTERIOR GYPSUM WALLBOARD

- A. Stipple Finish-Latex Systems:
 - 1. Primer:
 - a. 1505 ENVIRO-COTE Interior PVA Primer/Sealer.
 - 2. Intermediate:
 - a. 1615 PRO-ENAMEL Interior Latex Eggshell Stipple.
 - 3. Finish:
 - a. 1510 ENVIRO-COTE Interior Acrylic Eggshell Enamel.
- B. Smooth Wall Finishes:
 - 1. Base Coat:
 - a. 95-25 KM PROFESSIONAL Wallboard Pre-Cote/Primer/Sealer (recommended for level 5 finish).
 - 2. Primer:
 - a. 1505 ENVIRO-COTE Interior PVA Primer/Sealer.
 - 3. Finish:
 - a. 1510 ENVIRO-COTE Interior Acrylic Eggshell Enamel.

2.5 INTERIOR WOOD, HARDBOARD

- A. Wood and Hardboard (Painted Finish):
 - 1. Primer:
 - a. 975 ACRY-PLEX Interior 100 percent Acrylic Enamel Undercoat.
 - 2. Finish:
 - a. 1520 ENVIRO-COTE Interior 100 percent Acrylic Semi-Gloss Enamel.
- B. Stain and Clear Finish on Wood:
 - 1. Stain:
 - a. 1281 MODERN WOOD FINISH Oil Wiping Stain.
 - 2. Intermediate Coat:
 - a. 2096 KEL-THANE II Waterborne Interior Clear Gloss Finish.
 - 3. Two Finish Coats:
 - a. 2094 KEL-THANE II Waterborne Interior Clear Semi-Gloss Finish.
- C. Natural Finish on Wood:
 - 1. Sanding/Sealer Coat:
 - a. 2096 KEL-THANE II Waterborne Interior Clear Gloss Finish.
 - 2. Two Finish Coats:
 - a. 2094 KEL-THANE II Waterborne Interior Clear Semi-Gloss Finish.

2.6 INTERIOR METAL

- A. Ferrous Metal:
 - 1. Primer:
 - a. 1725 ACRY-SHIELD 100 percent Acrylic Metal Primer.
 - 2. Finish:
 - a. 1520 ENVIRO-COTE Interior 100 percent Acrylic Semi-Gloss Enamel.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
- C. Coordination of Work: Review other Sections in which primers are provided to ensure compatibility of the total system for various substrates. On request, furnish information on characteristics of finish materials to ensure use of compatible primers.
 - 1. Notify Architect about anticipated problems when using the materials specified over substrates primed by others.
 - 2. If a potential incompatibility of primers applied by others exists, obtain the following from the primer Applicator before proceeding:
 - a. Confirmation of primer's suitability for expected service conditions.
 - b. Confirmation of primer's ability to be top coated with materials specified.

3.2 PREPARATION

- A. General: Remove hardware and hardware accessories, plates, machined surfaces, lighting fixtures, and similar items already installed that are not to be painted. If removal is impractical or impossible because of size or weight of the item, provide surface-applied protection before surface preparation and painting.
 - 1. After completing painting operations in each space or area, reinstall items removed using workers skilled in the trades involved.
- B. Cleaning: Before applying paint or other surface treatments, clean substrates of substances that could impair bond of the various coatings. Remove oil and grease before cleaning.
 - 1. Schedule cleaning and painting so dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
- C. Surface Preparation: Clean and prepare surfaces to be painted according to manufacturer's written instructions for each particular substrate condition and as specified.
 - 1. Provide barrier coats over incompatible primers or remove and reprime.
 - 2. Provide barrier coats over incompatible primers or remove primers and reprime substrate.
 - 3. Cementitious Substrates: Prepare concrete, brick, concrete masonry block, and cement plaster surfaces to be coated. Remove efflorescence, chalk, dust, dirt, grease, oils, and release agents. Roughen as required to remove glaze. If hardeners or sealers have been used to improve curing, use mechanical methods to prepare surfaces.
 - a. Use abrasive blast-cleaning methods if recommended by coating manufacturer.
 - b. Determine alkalinity and moisture content of surfaces by performing appropriate tests. If surfaces are sufficiently alkaline to cause the finish paint to blister and burn, correct this condition before application. Do not coat surfaces if moisture content exceeds that permitted in manufacturer's written instructions.
 - 4. Wood Substrates: Clean surfaces of dirt, oil, and other foreign substances with scrapers, mineral spirits, and sandpaper, as required. Smoothly sand surfaces exposed to view and dust off.

- a. Scrape and clean small, dry, seasoned knots, and apply a thin coat of white shellac or other recommended knot sealer, before applying primer.
 - b. Immediately on delivery, prime edges, ends, faces, undersides, and backsides of wood to be coated.
 - c. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.
 - d. Determine moisture content of surfaces by performing a moisture test. Do not coat if moisture content exceeds 15 percent.
- 5. Ferrous-Metal Substrates: Clean ungalvanized ferrous-metal surfaces that have not been shop coated; remove oil, grease, dirt, loose mill scale, and other foreign substances. Use solvent or mechanical cleaning methods that comply with SSPC recommendations.
 - a. Blast-clean steel surfaces as recommended by coating manufacturer and according to SSPC-SP 10.
 - b. Treat bare and sandblasted or pickled clean metal with a metal treatment wash coat before priming.
 - c. Touch up bare areas and shop-applied prime coats that have been damaged. Wire brush, solvent clean, and touch up with same primer as the shop coat.
- 6. Nonferrous-Metal Substrates: Clean nonferrous and galvanized surfaces according to manufacturer's written instructions for the type of service, metal substrate, and application required.
 - a. Remove pretreatment from galvanized sheet metal fabricated from coil stock by mechanical methods.
- D. Material Preparation: Carefully mix and prepare coating materials according to manufacturer's written instructions.
 - 1. Maintain containers used in mixing and applying coatings in a clean condition, free of foreign materials and residue.
 - 2. Stir materials before applying to produce a mixture of uniform density. Stir as required during application. Do not stir surface film into the material. Remove film and, if necessary, strain coating material before using.
 - 3. Use only the type of thinners approved by manufacturer and only within recommended limits.
 - 4. Tinting: Tint each undercoat a lighter shade to simplify identification of each coat when multiple coats of same material are applied. Tint undercoats to match the color of the finish coat, but provide sufficient differences in shade of undercoats to distinguish each separate coat.

3.3 APPLICATION

- A. General: Apply paint according to manufacturer's written instructions. Use applicators and techniques best suited for substrate and type of material being applied.
- B. General: Apply high-performance coatings according to manufacturer's written instructions.
 - 1. Use applicators and techniques best suited for the material being applied.
 - 2. Do not apply high-performance coatings over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions detrimental to forming a durable coating film.
 - 3. Coating surface treatments, and finishes are indicated in the coating system descriptions.
 - 4. Provide finish coats compatible with primers used.
 - 5. The term "exposed surfaces" includes areas visible when permanent or built-

in fixtures, convactor covers, grilles, covers for finned-tube radiation, and similar components are in place. Extend coatings in these areas, as required, to maintain system integrity and provide desired protection.

- C. Application Procedures: Apply coatings by brush, roller, spray, or other applicators according to manufacturer's written instructions.
 - 1. The number of coats and film thickness required is the same regardless of application method.
 - 2. Completed Work: Match approved Samples for color, texture, and coverage. Remove, refinish, or recoat work that does not comply with specified requirements.

3.4 FIELD QUALITY CONTROL

- A. Owner reserves the right to invoke the following test procedure at any time and as often as Owner deems necessary during the period when paint is being applied:
 - 1. Owner will engage a qualified independent testing agency to sample paint material being used. Samples of material delivered to Project will be taken, identified, sealed, and certified in the presence of Contractor.
 - 2. Owner may direct Contractor to stop painting if test results show material being used does not comply with specified requirements. Contractor shall remove noncomplying paint from Project site, pay for testing, and repaint surfaces previously coated with the noncomplying paint. If necessary, Contractor may be required to remove noncomplying paint from previously painted surfaces if, on repainting with specified paint, the two coatings are incompatible.

3.5 CLEANING

- A. After completing painting, clean glass and paint-spattered surfaces. Remove spattered paint by washing and scraping without scratching or damaging adjacent finished surfaces.

3.6 PROTECTION

- A. Protect work of other trades, whether being painted or not, against damage from painting. Correct damage by cleaning, repairing or replacing, and repainting, as approved by Architect.
- B. Provide "Wet Paint" signs to protect newly painted finishes. After completing painting operations, remove temporary protective wrappings provided by others to protect their work.
- C. After work of other trades is complete, touch up and restore damaged or defaced painted surfaces.

END OF SECTION

